

# WASHINGTON STATE DEPARTMENT OF HEALTH OFFICE OF FOOD SAFETY AND SHELLFISH PROGRAMS

## ANNUAL GROWING AREA REVIEW

**PREPARED BY:** Donald J. Melvin, Environmental Specialist

**AREA:** Grays Harbor

**YEAR ENDING:** December 31, 2005

**CLASSIFICATION:** Approved, Conditionally Approved

### ACTIVITIES IN THE GROWING AREA IN 2005:

The Grays Harbor Approved area was sampled 6 times in 2005 following NSSP SRS criteria. The Conditionally Approved area was sampled 12 times. The central and south bay conditional areas were closed for 7 days due to flood conditions in the Chehalis River. The Elk River portion of the area was closed for 7 days due to extreme rainfall conditions. The Central Bay region was closed for a total of 20 days due to STP bypasses. Waste water treatment plant evaluations were completed at the Westport, Ocean Spray, Hoquiam, Aberdeen, and Weyerhaeuser-Cosmopolis facilities.

### ANALYTICAL RESULTS OF WATER SAMPLES:

Table #1 summarizes the most recent 30 samples collected from the “conditionally approved” area. All “conditionally approved” stations pass the water quality standard.

Table #2 summarizes the most recent 30 samples collected from the “approved” and “prohibited” areas. All “approved” stations pass the water quality standard. Station #36 in the “approved” area is threatened and stations #34 and #35 are of concern due to elevated bacteria levels. Individual sample results for station #36 are shown in Table 3.

### CHANGE IN ACTUAL POLLUTION SOURCES THAT IMPACT THE GROWING AREA:

We currently have no information indicating that the area has new sources of pollution.

### CLASSIFICATION STATUS:

- ☐ Well within the classification standards
- ☐ Meets standards but some concerns
- ☒ Meets standards but threatened with a downgrade in classification
- ☐ Fails to meet classification standards

### REMARKS AND RECOMMENDATIONS:

Grays Harbor is correctly classified as “approved”, “conditionally approved”, and “prohibited”. The area meets pollution source and water quality criteria for the current classifications. Grays Harbor and the Chehalis River are on the 303d list for fecal coliform.

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**ANNUAL GROWING AREA REVIEW**

**MANAGEMENT PLAN EVALUATION – BRIEFLY DESCRIBE THE FOLLOWING COMPONENTS:**

1. Have all parties involved complied with the conditions in the management plan .....Yes
2. Has reporting been adequate to manage the conditional area .....Yes
3. Does the area consistently meet approved area criteria when it is open for harvest .....Yes
4. Has a field inspection of critical pollution sources been conducted .....Yes  
Waste water treatment plant evaluations were completed at the Ocean Spray, Hoquiam, Aberdeen,  
and Weyerhaeuser-Cosmopolis facilities.

**TABLE 1****SUMMARY OF MARINE WATER DATA (APC)**Growing Area: **GRAYS HARBOR**Classification: **Conditionally Approved**From **02/13/2003** To **12/15/2005****FECAL COLIFORM ORGANISMS/100 ML**

<b>Station Number</b>	<b>Classification</b>	<b>Number of Samples</b>	<b>Range</b>	<b>Geometric Mean</b>	<b>% Samples &gt; 43</b>	<b>Meets Std.</b>
13	Conditionally Approved	36	1.7 - 79.0	3.8	2.7	Yes
14	Conditionally Approved	30	1.7 - 11.0	2.3	0.0	Yes
16	Conditionally Approved	32	1.7 - 49.0	4.1	3.1	Yes
22	Conditionally Approved	38	1.7 - 78.0	3.0	2.6	Yes
28	Conditionally Approved	32	1.7 - 33.0	4.5	0.0	Yes
29	Conditionally Approved	32	1.7 - 49.0	4.4	3.1	Yes
31	Conditionally Approved	36	1.7 - 33.0	2.4	0.0	Yes
38	Conditionally Approved	36	1.7 - 33.0	2.8	0.0	Yes
194	Conditionally Approved	43	1.7 - 46.0	3.0	2.3	Yes
199	Conditionally Approved	41	1.7 - 79.0	4.1	2.4	Yes
23	Conditionally Approved	37	1.7 - 27.0	2.6	0.0	Yes
24	Conditionally Approved	37	1.7 - 27.0	2.6	0.0	Yes
30	Conditionally Approved	37	1.7 - 17.0	2.8	0.0	Yes
33	Conditionally Approved	37	1.7 - 33.0	2.7	0.0	Yes
188	Conditionally Approved	33	1.7 - 70.0	2.8	6.0	Yes

All tides information is presented

The standard for approved shellfish growing waters is fecal coliform geometric mean not greater than 14 organisms/100ml with not more than 10 percent greater than 43 organisms/100ml. The above table shows bacteriological results in relation to program standards.

† All samples have been verified.

## TABLE 2

### SUMMARY OF MARINE WATER DATA (SRS)

Growing Area: GRAYS HARBOR

Classification: **Approved, Prohibited, Unclassified**

From **09/19/2002** To **12/15/2005**

### FECAL COLIFORM ORGANISMS/100 ML

Station Number	Classification	Number of Samples	Range	Geometric Mean	Est. 90th Percentile	Meets Std.
18	Approved	31	1.7 - 17.0	2.6	6.0	Yes
19	Approved	30	1.7 - 11.0	2.2	4.0	Yes
25	Approved	38	1.7 - 33.0	2.9	8.0	Yes
26	Approved	35	1.7 - 130.0	3.2	11.0	Yes
27	Approved	35	1.7 - 33.0	4.5	15.0	Yes
32	Approved	31	1.7 - 17.0	2.6	6.0	Yes
34	Approved	35	1.7 - 140.0	5.5	23.0	Yes
35	Approved	35	1.7 - 79.0	5.9	20.0	Yes
36	Approved	33	1.7 - 49.0	8.2	32.0	Yes
191	Approved	42	1.7 - 33.0	2.7	6.0	Yes
192	Approved	42	1.7 - 33.0	2.6	6.0	Yes
193	Approved	42	1.7 - 46.0	3.2	10.0	Yes
37	Prohibited	34	1.7 - 49.0	7.8	29.0	Yes

All tides information is presented

The standard for approved shellfish growing waters is fecal coliform geometric mean not greater than 14 organisms/100 ml and an estimate of the 90th percentile not greater than 43 organisms/100 ml. The above table shows bacteriological results in relation to program standards.

\* N/A - SRS criteria require a minimum of 30 samples from each station. \*

† All samples have been verified.

**TABLE 3****SUMMARY OF SHELLFISH GROWING AREAS  
WATER QUALITY STUDY RESULTS**Growing Area: **GRAYS HARBOR**Sampling Station Number: **36**Classification: **Approved**

Sample Date	Sample Time	Tide	Fcoli/100ml	Temperature	Salinity
09/19/2002	14:46	Ebb	4.5	16	28
10/02/2002	12:29	Ebb	6.8	13	25
12/11/2002	09:32	Ebb	23	8	22
02/13/2003	12:30	Ebb	1.7	8	16
03/17/2003	14:17	Ebb	11	9	11
03/31/2003	14:25	Ebb	13	11	10
04/02/2003	14:16	Ebb	17	8	15
05/01/2003	13:28	Flood	2	13	20
06/24/2003	10:28	Flood	4.5	15	24
07/28/2003	12:05	Flood	49	17	26
08/27/2003	13:47	Flood	6.1	15	32
09/23/2003	12:42	Flood	7.8	15	27
10/06/2003	12:59	Ebb	11	13	25
11/20/2003	12:22	Ebb	33	8	6
12/08/2003	13:29	Ebb	2	7	16
01/12/2004	11:32	Flood	13	6	16
02/04/2004	12:24	Ebb	2	6	12
03/09/2004	10:05	Flood	4.5	9	9
04/01/2004	12:05	Ebb	1.7	10	15
05/03/2004	12:18	Flood	49	14	23
06/01/2004	12:47	Flood	13	15	22
08/02/2004	13:19	Flood	22	16	30
10/11/2004	12:43	Ebb	13	14	25
12/16/2004	12:51	Flood	7.8	8	14
02/09/2005	13:50	Ebb	2	8	22
03/10/2005	10:56	Flood	2	11	25
04/07/2005	11:04	Flood	4.5	10	15
05/23/2005	14:59	Ebb	17	14	18
07/18/2005	12:13	Flood	49	19	24
08/29/2005	13:38	Ebb	11	17	30
09/01/2005	13:15	Flood	4.5	17	30
10/03/2005	10:39	Flood	46	12	24
10/27/2005	09:56	Flood	4.5	11	24

**Number of Samples: 33****Range: 1.7 - 49****Geometric Mean: 8.2****Estimated 90th Percentile: 32**

† All samples have been verified.

**TABLE 4****SUMMARY OF SHELLFISH GROWING AREAS  
WATER QUALITY STUDY RESULTS**Growing Area: **GRAYS HARBOR**Sampling Station Number: **188**Classification: **Conditionally Approved**

Sample Date	Sample Time	Tide	Fcoli/100ml	Temperature	Salinity
02/13/2003	11:37	Ebb	2	9	20
03/17/2003	12:35	Flood	2	9	19
03/31/2003	12:38	Flood	1.7	10	24
04/02/2003	13:10	Flood	1.7	8	20
05/01/2003	12:42	Flood	1.7	11	22
06/23/2003	12:14	Ebb	1.7	13	30
07/28/2003	11:10	Flood	1.7	14	30
08/27/2003	12:57	Flood	1.7	12	32
09/23/2003	11:57	Flood	1.7	9	32
10/06/2003	12:16	Ebb	1.7	11	32
11/20/2003	11:45	Ebb	70	7	6
12/08/2003	12:33	Flood	2	8	22
01/12/2004	10:12	Ebb	33	5	16
02/04/2004	10:41	Flood	1.7	6	18
03/10/2004	12:59	Flood	2	9	20
04/01/2004	11:13	Ebb	4.5	9	17
05/03/2004	11:27	Flood	1.7	12	28
06/01/2004	12:00	Flood	1.7	14	21
07/01/2004	10:31	Flood	2	13	30
08/02/2004	12:20	Flood	2	15	30
09/01/2004	10:47	Flood	1.8	17	25
10/11/2004	11:41	Flood	1.7	13	28
12/16/2004	11:50	Flood	13	8	14
12/16/2004	11:52	Flood	17	8	14
02/09/2005	13:00	Flood	1.7	8	30
03/10/2005	12:33	Flood	1.7	10	30
05/23/2005	14:14	Flood	2	13	25
06/02/2005	12:42	Ebb	2	15	20
07/18/2005	10:10	Flood	1.7	15	28
08/29/2005	12:36	Ebb	1.7	15	25
09/01/2005	12:14	Flood	1.7	14	32
10/03/2005	11:53	Flood	2	12	30
11/08/2005	09:07	Ebb	49	9	14

Number of Samples: 33

Range: 1.7 - 70

Geometric Mean: 2.8

% Samples &gt; 43 : 6.0606060606

† All samples have been verified.



FIGURE #1

GRAYS HARBOR CLASSIFICATION BOUNDARIES AND STATION LOCATIONS

